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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,289	10/11/2000	J. Scott Carr	60307	1154
23735	7590	02/09/2005	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008				BAYAT, BRADLEY B
ART UNIT		PAPER NUMBER		
		3621		

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/689,289	CARR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Bradley Bayat	3621	

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 November 2004.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

*Status of Claims*

Claims 20 and 21 were amended in the amendment filed on 1 November 2004. Thus, claims 1-21 remain pending.

*Response to Arguments*

Applicant's arguments filed November 1, 2004 have been fully considered but they are not persuasive.

In response to the rejection under §101, applicant states that the examiner "is invited to consider claims 15 of Leon's patent" directed to a postage label (applicant's response page 5). Applicant contends, "[j]ust as claim 15 of Leon is properly statutory, so are the claims of the present application" drawn to an envelope or a substrate (response p. 5). Applicants further notify their intent to file an appeal if the rejection is renewed (response p. 5). The examiner disagrees.

Applicant erroneously depends on a claim of the cited reference in an attempt to overcome the rejection under §101. Applicant has failed to address the rejection on the merits of applicant's claims. Furthermore, the claim cited in the Leon reference is distinctly different and contains other elements clearly lacking in applicant's claims that perhaps could lend to a statutory subject matter.

The applicant argues against the rejection under §103 stating that the Leon reference does not disclose a "digital" watermark (response p.5). Applicant further contends that Leon does not describe his watermark as being one of the machine-readable data elements; otherwise he would have stated so (response p. 6). Furthermore, applicant goes on to cite the Encyclopedia

Britannica, Wikipedia and the history of watermarks argue that Leon intended the use of watermarking on it's postage metering system that goes back to the year 1282 (response p.6). Applicant's arguments are at best tenuous. The examiner unreservedly disagrees.

Firstly, the examiner points to the fact that the rejection is based on obviousness and Leon is cited in conjunction with Bhaskaran and Yeung. The applicant has failed to address either of those references in his arguments.

Secondly, Leon discloses a postage metering system in a digital environment (see summary). Leon discloses printing postage labels and envelopes (column 4, lines 5-7) in a digital environment, wherein identifiers such as watermarks encode data into the substrate wherein such information is read by a machine and provides a signal as to its authenticity (column 3, lines 5-8; column 4, lines; column 8, lines 10-24).

Thirdly, Leon discloses a postage metering system in a completely digital environment wherein multiple fields are encoded on indicia encoding a particular encryption mechanism, cryptographic or digital signature or various other encoding/decoding schemes (column 11, line 22-column 12, line 15). In fact, Leon states "data can also be encoded using other schemes (column 12, line 15-column 13, line 63; figure 4 and associated text).

Therefore, the previous non-final action dated 28 July 2004 is hereby incorporated by reference and **THIS ACTION IS MADE FINAL.**

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

The basis of this rejection is set forth in a two-prong test of:

- (1) *whether the invention is within the technological arts; and*
- (2) *whether the invention produces a useful, concrete, and tangible result.*

Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. Furthermore, a mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble.

In the present case, the applicant is merely claiming an envelope (claim 1) and a substrate (claim 14) with some data encoded. Applicant's claims are not tied to a technological art, environment, or machine and therefore are non-statutory. *MPEP 2106 IV 2(b)*. Looking at the claim as a whole, nothing in the body of the claims recite any structure or functionality to suggest that applicant's claimed invention is within the required statutory subject matter and in the technological arts. *In re Musgrave*, 167 USPQ 280 (CCPA 1970) and *In re Johnston*, 183 USPQ 172 (CCPA 1974).

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. Although the recited process may produce a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the

technological arts as explained above, claims 1 and 14 are deemed to be directed to non-statutory subject matter and therefore claims 1-21 are rejected under 35 U.S.C. 101.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leon, U.S. Patent 6,701,304 B2 in view of Bhaskaran et al. (hereinafter Bhaskaran), U.S. Patent 6,064,764 and in further view of Yeung et al. (hereinafter Yeung), Digital Watermarks: Shedding Light on the Invisible.**

As per claim 1, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Bhaskaran, however, teaches the use of a fragile digital watermark for detecting tampering with the original image (columns 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an additional variation of a watermark technique as taught by Bhaskaran to detect any kind of tampering or

fraudulent production of an original mark or label as disclosed in Leon, to improve detection of unauthorized copies and reliably test image or postage authentication.

As per claim 2, Leon further discloses the envelope of claim 1 in which the watermark is formed with ink (column 2, lines 20-46).

As per claim 3, Leon further discloses the envelope of claim 1 in which the watermark is formed by texturing of the original envelope medium (column 2, lines 20-46).

As per claim 4, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that additional watermarks can be used on media for other functions, i.e., robust watermarks that can withstands at least certain photocopying operations yet for example identify the author of a work. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize additional watermarks besides a fragile watermark for to perform different functions as in origination information that a fragile watermark cannot perform.

As per claim 5, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that location at which an image is captured can be embedded into the image using an invisible watermarking technique to embed global positioning system (GPS) information, wherein queries of image archives can be searched (page 39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such watermarking technique to encode data that would directly link to the corresponding site without the need to query a database or archive.

As per claim 6, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that digital watermarks can encode data representing a device or user that produced the document (pages 33, 39). Therefore it would have been obvious for one of ordinary skill at the time of the invention to utilize a secondary watermark indicating the device

or originator of the indicia or envelope for further prevention of fraud to facilitate accurate authentication. [*Also see Bhaskaran for further support in columns 7-8.*]

As per claim 7, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that digital watermarks can encode data indicating to compliant equipment an image should not be reproduced or copied. (page 34). Therefore it would have been obvious for one of ordinary skill at the time of the invention to utilize a secondary watermark indicating to the compliant device not to copy or reproduce an image as a further measure for prevention of fraud.

As per claim 8, Leon discloses the envelope of claim 4 in which the second digital watermark is printed on the envelope at the same time as a franking mark (columns 6-7).

As per claim 9, Leon discloses the envelope of claim 8 in which the second digital watermark is printed on the envelope by the same printing assembly used to print said franking mark (columns 8-9).

As per claim 10, Leon discloses the envelope of claim 4 in which at least one of said digital watermarks occupies a region that is also occupied by a franking mark printed on said envelope (figures 4 and 5 and associated text).

As per claim 11, Leon discloses the envelope of claim 4 in which the second watermark is formed on a second side of the envelope, opposite a side on which the first watermark is formed (column 6).

As per claim 12, Leon discloses the envelope of claim 1 in which said digital watermark is printed on the envelope at the same time as a franking mark (figures 4, 5 and associated text).

As per claim 13, Leon discloses the envelope of claim 1 in which said digital watermark is printed on the envelope by the same printing assembly used to print said franking mark (column 6, lines 27-64; column 7, line 50-column 8, line 50).

Claims 14-21 are directed to a substrate of the above claims and are rejected as above.

*Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as*

*potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.*

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

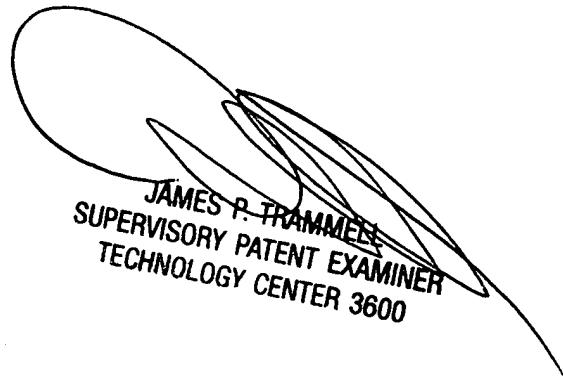
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Bayat whose telephone number is 703-305-8548. The examiner can normally be reached on Tuesday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "JAMES P. TRAMMELL", is written diagonally across a large, roughly oval-shaped outline. Below the name, the text "SUPERVISORY PATENT EXAMINER" and "TECHNOLOGY CENTER 3600" is written in a smaller, also handwritten, font.